



Delrin[®]

acetal resin

Delrin[®] 100ST NC010

Super Tough Acetal

Delrin[®] 100ST is a super tough, high viscosity acetal homopolymer grade with superior impact resistance. It is designed for highly stressed parts where outstanding toughness is essential.

Property	Test Method	Units	Value
Mechanical			
Tensile Strength at Yield 50mm/min (2.0in/min)	ASTM D 638	MPa (kpsi)	45 (6.5)
Elongation at Yield 50mm/min (2.0in/min)	ASTM D 638	%	35
Elongation at Break 50mm/min (2.0in/min)	ASTM D 638	%	>150
Tensile Modulus 50mm/min (2.0in/min)	ASTM D 638	MPa (kpsi)	1300 (190)
Flexural Modulus	ASTM D 790	MPa (kpsi)	1130 (160)
Flexural Stress	ASTM D 790	MPa (kpsi)	
Strain 5%			36 (5.2)
Izod Impact	ASTM D 256	J/m (ft lb/in)	840(NB) (16)
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	NB
Thermal			
Heat Deflection Temperature 0.45MPa (66psi), Not Annealed	ASTM D 648	°C (°F)	124 (255)
1.8MPa (264psi), Not Annealed			61 (142)
CLTE, Parallel 23 - 55C (73 - 130F)	ASTM E 831	E-4/C	1.26
CLTE, Normal 23 - 55C (73 - 130F)	ASTM E 831	E-4/C	1.23
Melting Point	ASTM D 3418	°C (°F)	178 (352)
Flow			
Melt Flow Rate 1.05kg at 190C	ASTM D 1238	g/10 min	0.8

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.
Mechanical properties measured at 23°C (73°F) unless otherwise stated.

Delrin[®] is a DuPont registered trademark.

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Product Information

Delrin® 100ST NC010

Property	Test Method	Units	Value
Electrical			
Surface Resistivity	ASTM D 257	ohm	2 E14
Volume Resistivity	ASTM D 257	ohm cm	4 E14
Dielectric Strength, Short Time 3.2mm (0.126in)	ASTM D 149	kV/mm (V/mil)	20 (510)
Dielectric Constant 1E6 Hz	ASTM D 150		4.2
Dissipation Factor 1E6 Hz	ASTM D 150		0.027
Flammability			
Rating @ Min. Thickness			HB
Min. Thickness Tested		mm	1.5
Other			
Specific Gravity	ASTM D 792		1.34
Water Absorption Equilibrium 50%RH Immersion 24h Saturation	ASTM D 570	%	0.35 0.44 0.85
Mold Shrinkage Flow, 24h, 3.2mm (0.126in) Transverse, 24h, 3.2mm (0.126in)	ASTM D 955	%	0.9-1.2 1.0-1.3
Processing			
Melt Temperature Range		°C (°F)	200-210 (392-410)
Mold Temperature Range		°C (°F)	40-60 (105-140)
Processing Moisture Content		%	<0.05

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